Walking Through Time

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Chris Speed
http://www.walkingthroughtime.co.uk

1 Introduction

Smart phones are becoming a standard across creative and consumer communities and their locative properties are beginning to change the way that we navigate physical and social spaces. Platforms such as the Apple iPhone and Google Android that contain GPS (Global Positioning Systems) technology are becoming a powerful research platform for exploring rural and urban landscapes. Traditionally used as an academic and industrial aid to fieldwork and navigation, 'locative media' systems are beginning to offer platforms for creative experimentation for landscape architects. This paper reflects a funded research project that offers an 'on the ground' insight into urban landscapes: Walking Through Time.

2 Walking Through Time

2.1 Overview

Walking Through Time : http://www.walkingthroughtime.co.uk is a mobile application that allows smart phone users with built-in GPS to not only find themselves in the present, but find themselves in the past. By making available historical maps of Edinburgh, users are able to scroll through time, and navigate places using maps that are hundreds of years old. Funded by a JISC rapid innovation grant, the application was developed collaboratively between Edinburgh College of Art and the University of Edinburgh[1].

Upon launching the phone application, users are able to find themselves in 'present' space, but by selecting from a series of historical maps they find themselves in a map of the same area but 150 years earlier (for example). The software then allows users to follow streets and walk through walls that have since been transformed through urban re-development. The investigators were initially interested in the sense of identification that users have expressed as they identify themselves as the 'blue dot' on the screen that is able to 'walk' on a historical map as though it was laid beneath their feet across 'present' space. Whilst this is a generic attribute of the application, the author (one of the development team) has begun to employ the software into the context of Landscape Architecture, and through short workshops is discovering how the application is able to reveal different interpretations of landscapes.

2.2 Case Study: AHRA Field/Work Conference

During the AHRA Field/Work conference in December 2009, the Walking Through Time application was used by a small group of academics to explore the urban landscape surrounding the University of Edinburgh. The morning workshop concentrated upon an area that has seen dramatic urban redevelopment both architecturally and through landscaping.

A group of three conference delegates walked from a street corner on the edge of the University campus, across an area of mixed development, past George Square gardens and

into the vicinity of an old city hospital that is now being refurbished into new apartments.

The route of their walk began at the corner of the University of Edinburgh's campus that has seen radical changes in the last 100 years (region 1). Upon launching the application and selecting a map from the 1850s, the group were faced with a new building (School of Informatics) that sat directly on Bristo Street which on the 1850 map stretched out diagonally before them (Fig. 1). This immediate difference between past and present allowed the group to establish the level of transformation of the urban landscape. It is important to note that the participants were encouraged to remain in the 1850 map; the application offers a hybrid view that mixes the Google map of today with the historical map.

Figure 1. Region 1, the start of the walk began immediately with a new building that prevented them from walking down an old road

Moving East down Crichton Street the group headed toward George's Square Gardens, that was developed in mid 18th Century. Upon entering the gardens from the street the group were made a significant realization: whilst the line of houses shifted from the 18th Century to the 20th Century, the park remained relatively faithful to its original plan (Fig. 2). Able to use the historical map to navigate, the group walked through the park and claimed to be able to identify trees that seem to have remained in the same place since the 1850's. The reflected upon how the trees and not the buildings actually offered 'anchors' between the historical map and the present day experience, that contemporary digital maps often ignored.

Moving out of George's Square the group headed toward an area that is under going terrific change today. The Edinburgh Royal Infirmary occupies a large area on the edge of the Meadows (a very large public park). Established in 1729 the hospital consists of many old buildings that stand upon an urban plan that has changed significantly over the last 150 years. The group could not enter the site of the hospital because it is under-going large-scale transformation into apartments and facilities by architects Fosters and Partners. Now a building site that is mixing contemporary architecture whilst retaining many features of the old, the group found the historical maps offered significant differences to what they saw across the building site.

Figure 2. Region 2. The participants moved into a 19th Century garden to find little change

Up until this point the group had remained in the 1850 map of the area, but upon seeing the dramatic transformation of the Hospital, the group chose to jump forward in time to the 1870 map. Upon loading the 1870 map the group noticed further architectural and landscaping details that they could identify as being closer to the 'image' of the present day, although still dramatically different to what they saw was building constructed on the building site. Reflecting upon the experience of loading the second historical map on to the former, the group described how the software made it clear the scale of complexity within landscape development. Whilst the first map allowed them to demonstrate the difference between two time frames: 1850 and the present, use of the 1870 map reminded them of the many different iterations of design and transformation that the landscape had undergone.

One member described how by being 'in' one historical map you identified the obvious comparisons with the present day, but upon launching a map that was 'in between' the earliest map and the present, it dawned upon you how many iterations the landscape must have been through, and how useless maps are at charting change – only difference. Another group member commented upon how surprisingly few records we seemed to have that documented social and architectural transformation, even though they accepted that Edinburgh was reasonably well mapped compared to many other European cities.

2.3 Initial Findings

Although the workshop was not organised in a specific manner to gather detailed data, the preliminary feedback from the group indicated three areas of potential benefit for landscape designers:

1. The capacity for smart phones equipped with GPS to locate the individual as a marker within a map, coupled with the use of a historical basemap, allows users to identify themselves within period of landscape history that requires that they comprehend the changes in the environment around them. Whilst traditional paper maps offer the same information, the experience of identifying oneself as the marker within a map provokes more sophisticated spatial/temporal knowledge.
2. The experience of using a historical map to 'satnav' through a landscape allowed users to identify features that had remained throughout time. In particular the large trees that could be walked up to, and used as 'anchors' across past and present maps.

3. The quantity of quickly accessible maps that each retained the users position, allowed the group to quickly reflect upon the transformations in the landscape around them. The process of jumping between times also allowed them to identify key features that had been lost between maps, and described why new features had been formed in a particular way.

3 Conclusions

The playful interface of the iPhone and the cognitive ability to identify with the blue dot on the screen as ourselves perhaps encourages tourists to place more faith in the historical map than in the unfamiliar world around them. We have found that by introducing the application to a new users there is an exciting new experience that emerges as the user is forced to navigate two places simultaneously in which her minds-eye is using the self-identification with the dot on the screen as a proof of herself, and yet finds it (them) located in a place that has changed dramatically around them.

Figure 3. Walking Through Time, smart phone navigation software

The ability to explore history whilst standing in a live location offers a host of opportunities for user groups to 'walk' old streets, discover missing buildings and extend their understanding of the past. Whilst an obvious target of the application may be tourists, the author and developers of the application suggest that many people will choose to navigate their city not in the technologically determined 'present' in which the map is as up-to-date and 'fresh' as possible, but may prefer to use an old landscape which is occupied by old stories. Walking through streets that aren't 'cleansed' of memories by Google or any other mapping body, allows us to engage with historical events with increasing closeness. The augmented reality systems, within which the Walking Through Time software can be bracketed, offer many opportunities to interface with the past, and

the next time that you touch your phone's screen, or launch your Sat Nav consider not where you are, but when you might be.

4 Notes

1. Walking Through Time was funded by a JISC rapid innovation grant. The application is a working prototype for the city of Edinburgh and was developed collaboratively between Edinburgh College of Art and the University of Edinburgh. Conceptual and Historical Development: I. Campbell, C. Speed and K. Sutherland, ECA. Technical Development: D. Berry, P. Leimlehner and P. Pratt, UoE. Mapping Support: J. Reid, B. Butchart and T. Urwin, Edina, UoE. The project website is: http://www.walkingthroughtime.co.uk and access to the application maybe granted with permission, see website for details.